CLAIMS

1. A constant monitoring and recovery system in a distributed information exchange network environment, comprising:

   measurement means that measure information relating to task usage, metrics and performance of a software-based business application process; and

   evaluation means for evaluating measured information based on underlying logic of the process.

2. A constant monitoring and recovery system as in claim 1, wherein the evaluation means is configured to evaluate the information by logic in combination with each other.

3. A constant monitoring and recovery system as in claim 1, wherein the evaluation means is configured dynamically from outside the application, and may be altered in real time.

4. A constant monitoring and recovery system as in claim 1, wherein the measurement means and evaluation means are implemented in an application host.

5. A constant monitoring and recovery system as in claim 4, where the measurement means and evaluation means introduce relatively low overhead to the application host.

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6. A constant monitoring and recovery system as in claim 1, further providing means for initiating real-world responses based on the results of the evaluation means.

5   7. A constant monitoring and recovery system as in claim 6, wherein the real-world responses comprise at least one of application restart, interaction with load balancing equipment, and failure notification.

8. A constant monitoring and recovery system as in claim 7, wherein the

10   means for initiating is configured to complete an existing process before restarting the application.

9. A constant monitoring and recovery system as in claim 1, further comprising a database that allows measured information to persist for later archival and/or

15   evaluation

10. A constant monitoring and recovery system as in claim 9, further comprising a system for retaining measured information at specified levels of granularity for specified periods of time.

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11. An application manager for a software based business application process, comprising:

monitoring means for monitoring metrics and performance of the process;

evaluation means for evaluating monitored information based on logic of the

process;

recovery means for automatically recovering the application based on evaluated

monitored information.

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12. An application manager as in claim 11, wherein the recovery means is

configured to recover the application after the existing process has been completed.

13. An application manager as in claim 11, wherein the recovery means

10 comprises means for notifying an administrator of failure of the process.

14. An application manager as in claim 11, wherein the monitoring means is

configured to provide access into the performance of various components of the software-

based business application to determine various levels of functionality of the application.

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15. An application manager as in claim 14, wherein the monitoring means

measures, when the application is in use, at least one of the levels of performance of

actual business logic of the application, and details of interactions of the monitored

application with other external applications.

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16. An application manager as in claim 11, wherein the evaluation means is

configured to collected, filter, aggregate, and or evaluate measured information against the

logic, based on specified criteria.

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17.   An application manager as in claim 11, wherein the evaluation means is configured dynamically from outside the application, and may be altered in real time.

5   18.   An application manager as in claim 11, further comprising archival means for persisting data to be available for historical as well as real-time reporting.

19.   An application manager as in claim 11, further comprising a system for retaining measured information at specified levels of granularity for specified periods of

10   time.

20.   An application manager as in claim 11, wherein the recovery means is configured to perform failure notification and recovery based on logical evaluation of monitored data, and to initiate real-world events, including at least one of restarting the

15   application process, performing a soft shutdown to further minimize service disruption and loss of information, and sending a notification to an administrator.

21.   An application manager for constant monitoring and recovery of a software based business application process, comprising:

20   an instrumentation API for setting up monitoring parameters;

an event notification and automatic recovery evaluation engine processing information from the instrument API; and

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a monitoring console server providing a monitoring operations of the application

manager.

22.   An application manager as in claim 21, wherein the instrumentation API is

5   customizable, allowing one to instrument and monitor unlimited tasks within standard or

custom code in existing programs.

23.   An application manager as in claim 21, wherein the event notification and

automatic recovery evaluation engine comprises at least one of:

10   means for forwarding information to the monitoring console server for archiving

and data mining;

means for alerting system administrator when performance thresholds are reached

or when a compete restart of a failed application is necessary; and

means for performing a soft shutdown whereby an application is stopped in stages,

15   keeping transactions from getting lost and ensuring enterprise reliability and availability.

24.   An application manager as in claim 21, wherein the monitoring console

server comprises at least one of:

means for providing determination of the functionality of immediate activity and

20   historical data;

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means for creating personalized views according to individual administrative roles and security access levels;

means for selecting what information and performance data can be accessed remotely; and

5   means for facilitating viewing data securely in real time via a web browser.

25.   An application manager as in claim 21, further comprising means for data logging and mining, which is configured to record system metrics including alerts, restart time, performance and reliability data to a database, and forwarding data to a central 10   logging server for event logging and data mining.